BVRIT HYDERABAD College of Engineering for Women

Text Summarizer

MAY 28,2021

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Project Description

Text Summarizer is an application which helps in summarizing the text. Automatic text summarization is a common problem in machine learning and natural language processing (NLP).

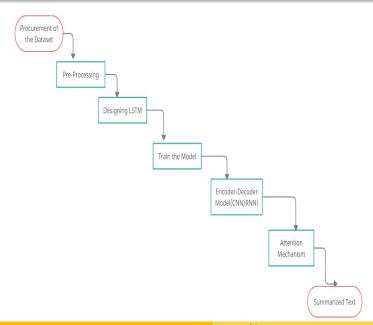
- Amazon Food Reviews Dataset
- It has 11 columns
- It includes 568,454 reviews from 256,059 users

Types of Text Summarizers

Extractive Text Summarizer: This methods attempt to summarize articles by selecting a subset of words that retain the most important points.

Abstractive Text Summarizer: This methods select words based on semantic understanding, even those words did not appear in the source documents.

Approach



Tech Stack

- Numpy
- Pandas
- NLTK
- Tensor Flow

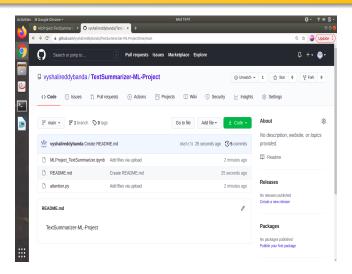
Learnings

- Encoder decoder architecture
- Attention mechanism

Challenges

- Compatability of tensor flow version
- Concept of embedding
- \bullet Building the model

Git Repo



- $\bullet \ https://github.com/Vyshalireddybanda/TextSummarizer-ML-project/tree/main.git$
- $\bullet \ https://github.com/Madhumitha8290/TextSummarizer.git$

Demo

Review: tea recently every table hotels little tea chest selection teas saved packaging hope could find internet yeah favorite lemongrass excellent Original summary: had this tea in Predicted summary: great tea Review: best salad dressing delivered promotly quantities last vidalia onion dressing compares made oak hill farms sometimes find costco order front door want Original summary: my favorite salad dressing Predicted summary: great seasoning Review: one cereals fruit mix grain chemicals extracted fruit juice want really natural cereal one fruits taste disgusting look elsewhere Original summary: super fake Predicted summary: tastes like Review: milk thistle said good liver mellow pleasant flavor really enjoy drinking alvita brand always good quality teas Original summary: very pleasant flavor and good quality Predicted summary: great tea

References

- $\bullet \ https://towardsdatascience.com/a-quick-introduction-to-text-summarization-in-machine-learning-3d27ccf18a9f \\$
- https://youtu.be/-wcrzwNmiAU
- https://github.com/aravindpai/How-to-build-own-text-summarizer-using-deep-learning/blob/master.ipynb

THANK YOU